

AMENDMENTS TO THE SPECIFICATION:

Please replace the first paragraph in the specification as filed, beginning on page 1, line 3, with the following amended paragraph.

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a divisional application of U.S. Serial No. 09/897,743, filed June 29, 2001, now U.S. Patent No. 6,629,992, which is a continuation in part of U.S. Serial No. 09/632,741, filed August 4, 2000, and titled DETACHABLE SHEATH TO PROVIDE PRE-DEPLOYMENT STENT SECURITY AND ENHANCED DELIVERY PRECISION, now abandoned, all of whose contents are hereby incorporated by reference.

Please replace the paragraph on page 9, beginning at line 3, with the following amended paragraph (which adds a period after “assembly 10”).

FIGURE 1 depicts a catheter assembly 10, including a delivery catheter 12, an endoprosthesis (depicted as a stent 14), and a bio-compatible sheath 16. The catheter assembly of the particular embodiment depicted includes an inner elongate tubular member 18 configured to encompass a guidewire 20 positioned to slide within an inner lumen of the inner elongate tubular member 18. An outer catheter tube 22 is disposed on and secured to the inner elongate tubular member 18. The catheter assembly 10 includes an expandable member, which in the embodiment depicted is a balloon 24, formed on or secured to catheter tube 22 at the distal portion 26 of the catheter assembly 10. The catheter tube further has a proximal portion 28, which may include a sidearm 30 with an inflation port 32 in fluid communication with the catheter tube 22, and may include a guidewire port 34 in communication with a proximal end 36 of the inner elongate tubular member 18. In addition, the catheter tube 22 has a distal end 38 which is glued, bonded, heat shrunk, or otherwise secured to the inner elongate tubular member 18 near its distal end 38.

Please replace the paragraph beginning on page 12, at line 26, with the following amended paragraph.

FIG. 9 depicts another embodiment of the invention, with a catheter assembly 10 that includes a delivery catheter 12, an endoprosthesis (depicted as a stent 14), and a bio-compatible filament 70. The biocompatible filament 70 is wrapped around the stent, preventing the stent 14 from expanding or becoming dislodged from the catheter during stent delivery. The biocompatible sheath 16 may exert continuous inward pressure on the stent 14, particularly where the stent is a self-expanding stent. The filament may be wrapped around the stent and, depending on the particular application and stent configuration, the filament may be woven through openings in the stent structure. In the embodiment shown, the filament 70 is wrapped around and heat bonded to the stent 14 such that it does not overlie the distal end and the proximal end of the stent 14.

Please replace the paragraph on page 16, beginning at line 21, with the following amended paragraph.

After the stent 14 is fully expanded, the expandable member 24 is contracted, such as may be achieved by deflating a catheter balloon. The delivery catheter 12 (including the catheter tube 22 and expandable member 24 balloon) and guidewire [[24]] 20 are withdrawn from the vasculature, as depicted in FIG. 18, with the stent 14 and biocompatible material (in the form of the sheath 16) remaining behind.